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JOINT EVENT

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BIORAISE: A GIS tool for the evaluation of agricultural and forestry available biomass resources and costs in Mediterranean Countries

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The previous version of BIORAISE has been updated and extended to serve georeferenced quantitative data of biomass resources from agriculture, forestry and scrublands. BIORAISE is an open access GIS tool embedding sustainable biomass resources, environmental risks visualization and on-field exploitation costs covering Portugal, Spain, France, Italy, Croatia, Slovenia, Greece and Turkey. Additionally relevant stakeholders' information is also indicated. Georeferenced information is computed on the fly from user-selected locations (pick-up point and area of interest, either within a user-choice circular radio or an administrative boundary from municipality to European Nomenclature of Territorial Units for Statistics NUT3 limits): surfaces (hectares), potential biomass resources (tonnes of dry matter/year) and a more realistic availability derived from harvesting efficiency rates in the case of agricultural resources while considering slope percent rise, soil erosion risk and topsoil organic carbon content (30 cm depth) in the case of forestry resources, together with estimated harvesting and transport costs (€/tonnes of dry matter). Regarding quality parameters, the service provides energy content (GJ/year), and ashes content (% dry matter) on the basis of numbers obtained in a complete laboratory characterization study from biomass samples from the selected countries. The calorific values are updated depending on moisture content choices. The stakeholders databases consists of producers (raw biomass producers, wood, olive oil, nut hulling, and wine sector -distilleries- industries) and other actors (e.g., equipment and machines for industry, services and facilities, manufacture of biofuels and biomass valorisation, biofuel dealers, research centres, large consumers, and BIOMASUD PLUS biofuel producers). EUROSTAT, national forest inventories, and other statistical data have been integrated in the geospatial agriculture, shrub and forestry surfaces in CORINE LAND COVER 2012. Geoprocessing steps apply residues productivity rates, biofuels annual production data and achieve a compromise between local specifications, consistency of results, data harmonization and homogeneity for such a large area.



Biography

Eva Sevillano Marco is Extensive mix of social science and technical research approaches, promoting interaction among stakeholders. Collaboration in national and European projects: local action groups, regional governments, forest owners associations, SMEs, universities and research centres in several countries. Essentially, much of my work looks at how research could serve societies at large, and includes participation mechanisms. Research projects linked to nature conservation, rural development and forestry. Topics: local management, forest inventory, silviculture, growth & biomass modelling, suitability mapping, forest attributes estimation using RS and GIS tools, quality indicators spatialization and uncertainty assessment.

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